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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,454	02/20/2004	Marcus Allen Mills		5637

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EXAMINER

JEFFERY, JOHN A

ART UNIT PAPER NUMBER

3742

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,454

Applicant(s)

MILLS, MARCUS ALLEN

Examiner

John A. Jeffery

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Title of Invention

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Water Heating Device With Light Bulb Heat Source Whose Light is Transferred to Another Light Source."

Abstract

The abstract of the disclosure is objected to because of the following informalities: In line 7, the period must be changed to a comma. In line 8, "light source" must be changed to "light." In line 9, "source" must be deleted. In line 9, "glass" must be changed to "plastic." In line 10, "optics" must be changed to "optic." In the last line, "a light emitting device" must be changed to "light" for brevity and clarity. Correction is required. See MPEP § 608.01(b).

Disclosure Objections

The disclosure is objected to because of the following informalities:

On Page 1, line 4, "known" is misspelled.

On Page 2, line 2, "light bulb" must be inserted before numeral 4.

On Page 1, lines 3-4 of the "Background of the Invention" section, the phrase "create a light to be transmitted" must be changed to "transmit light."

On Page 2, line 5, (1) a paragraph indent must be added, and (2) "catch" must be changed to "capture."

On Page 2, line 14, "cap 6" must be changed to "adapter cap 6" for clarity.

On Page 2, line 16, "cable 17" must be changed to "tube 14."

On Page 2, line 16, "fiber plastic tube" must be changed to "plastic fiber optic tube 14."

On Page 2, line 17, "tube 12" must be inserted after "glass fiber optic."

On Page 3, line 2 of the "Conclusion of the Invention" section, "different source of energy" must be changed to "different purpose" for clarity. In line 3 of that section, "generation" must be changed to "source."

The pats list must be deleted and instead each component described in the Detailed Description section of the specification.

Because no description of numerals 12-14 as shown in the drawings is present in the specification as filed, applicant must add such description. Applicant is cautioned against the inclusion of new matter.

Appropriate correction is required.

Drawing Objections

The drawings are objected to because of the following informalities:

Fig. 1: Numerals 4 and 5 and associated lead lines must be added to the figure to refer to the light bulb and metal sleeve respectively.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-4¹ are objected to because of the following informalities:

Claim 1: In line 3, "is being" must be deleted for brevity.

Claim 2: In line 2, the period after the comma must be deleted.

Claim 2: In line 2, "which shield is" must be changed to "said shield" for brevity.

Claim 2: In line 2, "adapter" must be changed to "adapter cap" for clarity.

Claim 4: The dollar sign (\$) must be changed to the numeral 4 for proper claim designation. See also Footnote 1.

Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. The test for definiteness under 35 U.S.C. § 112, second paragraph is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986).

In this case, the following limitations are indefinite and the scope of the claims cannot be reasonably ascertained by skilled artisans even when read in light of the specification. Accordingly, applicant must make the following changes:

Claim 2: In line 3, “a further light” must be changed to “direct light to” for clarity.

Claim 3: In lines 2-3, “wherein said collecting of said light constitutes a fiber optic cable” must be changed to “further comprising a fiber optic cable connected to said adapter cap” for clarity.

¹ Although the last claim is denoted by a dollar sign (\$), the examiner presumes that such a designation is a typographical error. Accordingly, the examiner presumes the last claim is claim 4.

Art Unit: 3742

Claim 4: In line 2, no antecedent basis exists for "said first heat converting system." (emphasis added.) Therefore, "first" in line 2 must be deleted.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 USC 102(b) as being anticipated by DE3707486. DE3707486 discloses a water heating device comprising regular light bulbs 7 that heat water flowing in coiled copper pipe 5. Shield 4 surrounds the light bulbs. See the figure and abstract.

Claim Rejections - 35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Art Unit: 3742

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE3707486 in view of JP7-98153. The claim differs from DE3707486 in calling for a second heat converting system coupled in a series arrangement. But serially coupling multiple radiantly-heated fluid heaters together is well known in the art. JP7-98153, for example, discloses serially connecting a number of fluid heaters 2a together such that the fluid must flow through each respective housing prior to exiting the outlet. Each heater housing 2a contains lamps to heat the fluid flowing therein. See abstract and ¶ 0008 of the computer translation. Such an arrangement not only provides gradual, progressive heating of the fluid as it travels, but also enables individual electronic control of each heater. In view of JP7-98153, it would have been obvious to one of ordinary skill in the art at the time of the invention to serially-couple an additional heat converting system in the previously described apparatus to not only gradually and progressively heat the fluid as it travels, but also individually control each heater.

Allowable Subject Matter

Claims 2 and 3 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

Other Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should (1) separately consider the art, and (2) consider

Art Unit: 3742

the art together with the previously cited prior art for potential applicability under 35 U.S.C. §§ 102 or 103 when responding to this action. US 286, US 877, US 941, DD 654, FR 613, US 107, US 689, US 794, DE 288 disclose water heaters relevant to the instant invention. US 514 discloses using a light pipe to transmit light remotely to heat fluid in a vessel.

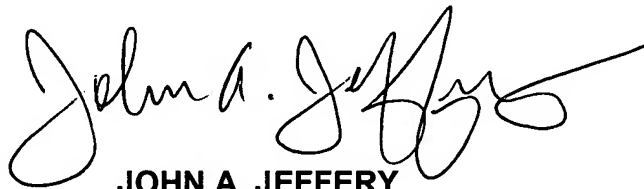
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (703) 872-9306.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "John A. Jeffery", with a long horizontal flourish extending to the right.

**JOHN A. JEFFERY
PRIMARY EXAMINER**

6/8/05